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ABSTRACT

Assessment of the College-Level Academic Skills Test Project (CLAST) at Florida colleges and universities is discussed. Included is an overview of the role of placement testing for entering freshmen and the questions that should be answered regarding the effectiveness of current entry testing and course placement practices. Information is included on: the level of sophomore college-level skills in communication and computation in 1985-1986; the CLAST scale score performance of private postsecondary institutions; the level of communication and computation skills of examinees enrolled at each public institution; the percentage of examinees in 1985-1986 meeting 1984 CLAST standards by ethnic/racial group; and percentages of examinees at specific institutions that passed CLAST in 1985-1986. For the CLAST reading, writing, computation, and essay subtests, CLAST standards are indicated for 1984, 1986, and 1989. Data are included on the percentage of 1985-1986 examinees meeting the 1986 and 1989 CLAST standards for all examinees and for racial/ethnic groups; and the percentage of 1985-1986 public college examinees meeting CLAST subtest standards based on 1986 and 1989 standards. Twelve recommendations for improving student and institutional performance are offered. (SW)

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ED295504

STUDENT ACHIEVEMENT OF COLLEGE-LEVEL COMMUNICATION AND COMPUTATION SKILLS IN FLORIDA: 1985-86

HE 020 439

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STUDENT ACHIEVEMENT OF COLLEGE-LEVEL COMMUNICATION AND COMPUTATION SKILLS IN FLORIDA: 1985-86

Executive Summary

Florida's strategy for educational improvement was designed in the late 1960s and implemented in the 1970s. It is a performance-based strategy which requires: (1) identifying desired student outcomes, (2) setting standards for judging those outcomes, (3) implementing procedures for assessing and monitoring the outcomes, and (4) assessing educational processes to see if they are working effectively and efficiently to achieve the desired outcomes.

This strategy was implemented in postsecondary education in Florida in the early 1980s under the College-Level Academic Skills Project. At this point in time, the desired learning outcomes have been identified. Performance standards are in place. The College-Level Academic Skills Test (CLAST) is given three times each year. And the data base for monitoring progress is growing with each administration of CLAST.

What remains to be done is to develop and implement procedures for analyzing CLAST data at each institution. These analyses must be fine-grained so that specific curricular areas can be examined and skill areas which give students difficulty can be identified. Once problem areas are pin-pointed, efforts can be focused on improving student performance through appropriate revisions in curriculum, in instructional procedures, or both. Implementing institutional analysis of CLAST data and curriculum improvement are the next steps which must be addressed if Florida's quality improvement strategy is to come to fruition.

This report has been formatted to facilitate data analysis and decision-making by policy makers at the state level and is presented in five parts:

- Part 1 presents an overview of the role of placement testing for entering freshmen and the questions that should be answered regarding the effectiveness of current entry testing and course placement practices.
- Part 2 reports on the status of student achievement of College-Level Academic Skills for the academic year 1985-86.
- Part 3 reports the extent to which the '84 standards were met by students taking CLAST in 1985-86; results of re-taking CLAST are also reported.
- Part 4 examines implications of current student performance regarding meeting standards that will go into effect in 1986 and 1989. These implications are based on applying the '86 and the '89 standards to the 1985-86 CLAST data.
- Part 5 presents recommendations for improving student and institutional performance.

Entry Testing. The commonly accepted practice for dealing with academic deficiencies is to determine level of entering proficiency and then place students into courses appropriate for their level of educational development. Thus, placement testing and course placement is a vital component of Florida's quality improvement strategy. Effective course placement and preparatory instruction are necessary if equality of opportunity is to be available to all of Florida's citizens. The State Board of Education has ensured that these sound, educational practices be implemented by adopting rules which mandate placement testing.

In 1985-86, the Division of Community Colleges and SUS Board of Regents surveyed their respective institutions regarding placement testing. A decision was made wherein the two divisions would do their own report rather than through the Standing Committee as in the past. In light of this, no placement and testing data are reported herein.

Placement testing and course placement are important elements of Florida's educational quality improvement strategy. Appropriate data needs to be collected to determine whether these practices are being implemented and are working effectively. This report lists nine specific questions which should be asked and answered to determine whether Florida's community colleges and state universities are in compliance with Florida Administrative Code. It may well be that current administrative code needs to be revised to make reporting requirements regarding placement testing and course placement more explicit and detailed.

Performance on CLAST in 1985-86. In October 1982, CLAST subtest scores were standardized to have a mean of 300 for the three multiple-choice subtests, and a 4.7 for the Essay. By comparing 1985-86 mean scale scores with the 1982 baselines, it may be concluded that current performance on CLAST is being maintained at levels substantially higher than the baseline year.

Scale score means for CLAST subtests showed steady improvement in 1983-84 and 1984-85. Data for 1985-86 suggests a mixed picture. While performance in Writing (scale score mean of 317 to 319) and Essay (scale score mean of 5.0 to 5.1) continued to increase, a one-point decline was observed for Computation (scale score mean from 311 to 310) and a two-point decline for Reading (scale score mean from 320 to 318). It may well be that writing skills are now being stressed in instruction. Why performance in Computation and Reading declined slightly is unclear.

Some sophomores in Florida's private colleges and universities now take the CLAST. Beginning in August 1985, students receiving state financial aid in private institutions had to obtain passing scores or enroll in a course to remediate basic skills deficiencies to maintain their eligibility for state financial aid awards.

Analysis of institutional CLAST mean scale scores suggests that performance levels are heterogeneous irrespective of kind of institution. There are community colleges whose sophomores perform on CLAST as well as the highest SUS university sophomores. Similarly, one can also find some SUS universities intermixed with community colleges at the lower end of the scale score distributions. A state-wide summary of CLAST performance is shown in the table which follows.

Kind of Institution	No. of Students	CLAST Scale Score Means for: Computation	Reading	Writing	Essay
Community Colleges	17,458	308	317	317	5.1
SUS Universities	17,264	308	319	320	5.1
All State Institutions	34,722	308	317	318	5.1

Degree to Which the '84 Standards Were Met. Eighty-eight percent (88%) of all first-time examinees in 1985-86 met the '84 CLAST standards. But analysis of the performance of racial and ethnic groups reveals varying success rates. For example, 93% of the white examinees passed all four subtests. Hispanics and American Indians had the next highest passing rates, 82% and 90% respectively, followed by Asians who had a 79% passing rate. Blacks and Foreign Nationals had the most difficulty as only 69% and 65%, respectively, passed all four CLAST subtests.

Examinees taken as a whole appear to do well on CLAST subtests with the exception of Essay writing. In 1985-86, 97% of all examinees passed the Computation, the Reading, and the Writing subtests. Only 92% passed the Essay subtest based on the '84 standards.

From a curricular and instructional perspective, these data suggest that Essay writing is the area in which students have the most difficulty. The students having the most difficulty with Essay writing are Black students and students with foreign backgrounds.

Has there been improvement in the number meeting the 1984 CLAST standards? The answer to this question is a qualified "yes." By applying the '84 CLAST standards to the three prior years, we find that 72% passed in 1982-83, 80% passed in 1983-84, 88% passed in 1984-85 and 88% passed in 1985-86. So after steady gains the previous three years, performance seems to have leveled off in 1985-86.

Retaking CLAST Subtests. A special study was done to determine how successful students are when they retake CLAST subtests which they had failed earlier. Results based on 13,000 sophomores who initially took CLAST in September 1984 shows that 87% of them passed on their first attempt, and 93% were able to pass all required subtests when the followup study ended one year later.

By examining the cumulative totals by subtest, it was observed that 98% of these sophomores were able to pass the Computation subtest one year after they initially took CLAST. The results for Reading and Writing were identical with 98% passing after one year. The largest improvement was in Essay writing, from 91% passing on the first try to 95% passing after one year. It seems clear that motivated students who

receive additional instruction and/or practice in computation, reading, or writing can achieve CLAST standards if given the opportunity. It seems reasonable to expect that students will achieve levels of performance that are reasonably high if they are expected to and are given sufficient opportunities to acquire, practice, and demonstrate these skills.

Implications of Current Performance for Achieving the '86 and the '89 Standards. When the State Board of Education adopted the CLAST standards, it did so with the understanding that the 1984 standards were at a level which was commensurate with where students and the curriculum were at that time. The standards which were adopted for 1986 reach but one-third of the way to the desired standards which are scheduled to be put into effect in 1989. Thus, the amount of improvement needed to go from 1984 to 1986 is smaller than the amount needed to go from 1986 to 1989. How would current students do compared to the '86 and the '89 standards?

One way to determine whether institutions need to consider changing their existing curriculum and instruction is to compare current student CLAST performance against the standards proposed for 1986 and those proposed for 1989. Such projections were derived by applying the '86 and '89 standards to CLAST scores observed in 1985-86. These projections were done to examine possible impacts of CLAST if student and institutional performance stabilizes and does not increase beyond current levels.

Students in 1985-86 would do fairly well against the '86 standards as 83% would be able to meet them. But the picture is less positive when the '89 standards are applied--only 44% would be able to meet the '89 standards. The implications of these projections are self-evident: much remains to be done to ensure that each institution does its utmost to analyze its curriculum and instructional practices regarding the college-level academic skills so that when their students become sophomores, they will be able to meet the '86 and the '89 standards.

While it may be tempting to leap ahead to speculate about the impact of the '84 and the '89 standards on minority group students, the fact remains that the vast majority of students requiring remediation would be from the white majority. If current levels of performance do not increase, 3,238 white sophomores would require remediation when the '86 standards go into effect and 13,761 white sophomores would require remediation when the '89 standards go into effect. While higher proportions of minority group students would require remedial instruction, their number would be relatively small when compared to the white majority.

The implications of failure rates on the Essay subtest are significant. Teaching writing skills is a labor intensive process because papers must be read individually, detailed feedback needs to be given, and conferences with the student writer are often used. If the projected failure rates come true, then 2,778 sophomores would require remediation in essay writing when the '86 standards go into effect, and 12,153 sophomores would require remediation when the '89 standards go into effect--assuming that student performance remains at the levels observed in 1985-86.

What are the chances that most of Florida's college sophomores will be able to meet the '86 and '89 standards when the time comes? The prospects of this happening depend on satisfying at least three conditions:

- o One condition would be that the secondary schools do a better job of preparing students in the college-level academic skills.
- o A second condition is that each community college and university place greater emphasis on curriculum and teaching methods which develop the required skills in computation and communication.
- o A third condition is that students be encouraged to continue seeking instruction in skill areas which they fail on the CLAST and then to retake them. Experience has shown that most students (95%-98%) who retake CLAST subtests pass them.

There are good reasons to believe that sophomore CLAST performance will increase. First, community colleges and universities have been revising their curriculum to enhance student opportunities to acquire the desired academic skills in communication and computation. Second, lower division students are now required to enroll in "Gordon rule" courses (6A-10.030, FAC) which are intended to help students acquire the college level academic skills. And third, the legislature has provided funds to reduce class size in computation and communication courses for the purpose of increasing achievement.

Despite this note of optimism, are the '89 standards really attainable by most of Florida's college-going sophomores? The '89 standards are by no means elitist. The item content of the CLAST is based on subject matter that is typically taught in college preparatory courses in high school. In addition, the cut-off or qualifying scores fall short of a perfect score of 100%!

Using CLAST Data to Improve Curriculum and Instruction. CLAST subtest performance data can be used to identify the strengths and weaknesses of an institution's curriculum and instruction in communication and computation. What must be done is to make these data readily available to faculty and administrators on each campus. In addition, these data must be displayed in ways that will allow students, faculty, and administrators to pinpoint areas needing improvement. The role of the Department of Education may be crucial here in developing and disseminating useful data displays to each public postsecondary institution in Florida.

Recommendations. Based on the analysis of CLAST test scores and other data collected in 1985-86, the following recommendations are offered:

1. Appropriate administrative code should be adopted which specifies the kinds of data which should be collected regarding placement testing and course placement to answer the following questions:

- o Do freshmen have required placement test scores at entry?
- o How many freshmen students require preparatory instruction at entry to postsecondary education?

- How many freshmen students who require preparatory instruction receive it?
- Are the college-preparatory instructional needs of minority students being addressed by community colleges and SUS universities?
- Are placement testing and placement practices working effectively?
- What is the retention rate of minority students? Nonminority students?
- What is the status of freshmen college-level academic skills at entry into postsecondary education?
- Have entering freshmen's skills in communication and computation improved?
- Are institutions in compliance with placement testing statutes and rules?

2. Given the statute passed in 1986 which makes taking the CLAST available to all lower-division students seeking associate of arts or baccalaureate degrees, guidelines should be developed for determining access to take CLAST on an early basis.

The Standing Committee on Student Achievement unanimously recommends the following guidelines for assessing readiness to take CLAST early:

> To be eligible to take the CLAST earlier than the second semester of their sophomore year, lower-division students: (1) must have completed successfully their institution's required college credit courses for communication and computation, or (2) meet or exceed an empirically determined cut-off score on the approved SAT or ACT placement tests.

3. Articulation procedures should be developed for assisting community college students who fail CLAST and transfer to an SUS university.

4. The CLASP staff should develop summaries of CLAST performance data by skill area and by institution; these skill area reports should be disseminated to each institution participating in CLAST testing.

5. The reports recommended in Item 4, and other CLAST reports, should be disseminated to the Institutional Test Administrator (ITA) with instructions to forward a copy to the chief academic officer, and he or she in turn should disseminate copies to appropriate academic administrators and faculty.

6. The CLASP staff should produce distributions of CLAST subtest scores to determine how much, or how little, student performance must improve to meet the 1989 standards.

7. A state-level panel for CLAST Standards should be convened at least

one year prior to implementation of the 1989 CLAST standards; the panel's purpose would be ". . . to review the evidence and to propose to the Commissioner of Education the changes in the score levels, if any, which appear to be needed."*

8. The CLASP staff should review CLAST reports to determine which ones should be continued, whether any new reports should be developed (see Item 4), and which current reports should be discontinued.

9. Conferences on improving curriculum, instruction and student performance of college-level skills in communications and computation should be continued and the participation of secondary school faculty invited.

10. Appropriate staff in the Department of Education should review the status of learner packets for interpreting CLAST subtest scores and for mastering the College-Level Skills in Communication and Computation; if none are currently available, they should determine the feasibility of designing and producing such materials for lower division students in Florida's community colleges and universities.

11. Appropriate staff in the Department of Education should maintain contact through personal attendance at meetings of state councils of chief academic officers and institutional registrars to present changes and interpretations in CLAST testing policy and procedures.

12. The Articulation Coordinating Committee should review the methods for disseminating CLAST data, determine whether these dissemination practices are being carried out, and determine how CLAST data are being used for curricular and instructional improvement.

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* James J. Gardner, Chairman. Report of the State-Level Panel for CLAST Standards to Commissioner Ralph D. Turlington. Mimeograph, January 5, 1984, p. 2.

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INTRODUCTION

Florida's strategy for educational improvement was designed in the late 1960s and implemented in the 1970s. It is a performance-based strategy which requires: (1) identifying desired student outcomes, (2) setting standards for judging those outcomes, (3) implementing procedures for assessing and monitoring the outcomes, and (4) assessing educational processes to see if they are working effectively and efficiently to achieve the desired outcomes.

This quality improvement strategy was implemented in Florida's elementary and secondary schools in the early 1970s; it reached postsecondary education in 1979 when the College-Level Academic Skills Project (CLASP) was created.

Faculty involvement is one of the critical conditions required to make CLASP work. CLASP involves committees made up of faculty and administrators from the high schools, community colleges, and universities. Faculty teams initially identified the initial set of college-level skills. Samples of faculty at each public postsecondary institution in Florida were sent surveys to validate the original set of skills and to validate revisions of these skills. Faculty teams also reviewed the test item specifications from which the College-Level Academic Skills Test (CLAST) items are written. Contracts for projects to produce test items are given to faculty teams on the various community college and university campuses. And in September 1986, faculty organized and held a two-day conference on increasing the effectiveness of curriculum and instruction for the college-level academic skills. The conference was held in Tampa and was attended by over 300 participants--including one out-of-state observer.

Implementing this quality improvement strategy did not happen overnight. Much has been accomplished during the past six years, but more needs to be done before Florida can reap the benefits from its investment in a college-level academic skills testing program.

At this point in time, the desired learning outcomes have been identified. Performance standards are in place. Testing of the college-level academic skills is done three times each year. And the data base for monitoring progress is growing with each administration.

What remains to be done is to develop and implement procedures for analyzing CLAST data at each institution. These analyses must be fine-grained so that specific curricular areas can be examined and skill areas which give students difficulty can be identified. Once problem areas are pin-pointed, efforts can be focused on improving student performance through appropriate revisions in curriculum, in instructional procedures, or both. Facilitating institutional analysis of CLAST data is the next step which must be addressed if Florida's quality improvement strategy is to come to fruition.

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- Part 1 presents an overview of the role of placement testing for entering freshmen and the questions that should be answered regarding the effectiveness of current entry testing and course placement practices.

- Part 2 reports on the status of student achievement of College-Level Academic Skills for the academic year 1985-86.

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- Part 4 examines implications of current student performance regarding meeting standards that will go into effect in 1986 and 1989. These implications are based on applying the '86 and the '89 standards to the 1985-86 CLAST data.

- Part 5 presents recommendations for improving student and institutional performance.

The Standing Committee on Student Achievement of the Articulation Coordinating Committee was responsible for preparing this report.* It could not have done so without assistance from many others. Dr. Thomas Fisher, Director of Student Assessment Services, and his staff members facilitated acquisition of data and offered many helpful suggestions. CLAST results were provided by the CLAST Statewide Test Administrator's office in Gainesville; these data were initially assembled by Dr. Myron Blee and Ms. Lynn Tabeling of the CLASP office in Tallahassee. Ms. Kerry McCaig provided assistance in tabulating the data. The assistance and cooperation of these individuals and staff members in the agencies mentioned above are gratefully acknowledged.

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* The Articulation Coordinating Committee is required by State Board of Education Rule 6A-10.0311, FAC, to collect and report data relative to the achievement of college-level skills in communication and computation. This report is made in compliance with that rule.

PART 1. PLACEMENT TEST RESULTS FOR FALL, 1985

The College-Level Academic Skills Project (CLASP) was timely. It was implemented at a time characterized by grade inflation and relaxation of graduation standards. Although most of the attention given to the project focuses on sophomore test results, the College-Level Academic Skills Test (CLAST) is only one part of Florida's overall quality improvement strategy. Another important component is placement testing and course placement of students entering postsecondary education.

The commonly accepted practice for dealing with academic deficiencies in postsecondary education is to determine level of entering proficiency and then place students into courses appropriate for their level of educational development. Thus, placement testing and course placement is a vital component of Florida's quality improvement strategy. Effective course placement and preparatory instruction are necessary if equality of opportunity is to be available to all of Florida's citizens. The State Board of Education has ensured that these sound, educational practices be implemented by adopting rules which mandate placement testing.

Analysis of data reported by public institutions in Florida suggests that freshmen* entering postsecondary education display a wide range of levels in their basic academic skills in communication and computation. For example, in the first semester of 1984-85** 26% of the community college freshmen enrolling for college-level courses were diagnosed as requiring college preparatory instruction in reading; 25% of them required college preparatory instruction in writing, and 38% required it in computation. The estimate for entering freshmen in the State University System (SUS) was 19% in reading, 6% in writing, and 7% in computation. Furthermore, the number of freshmen who were eligible for college preparatory instruction and reported as enrolled for it ranged between 58-79% for community colleges and from 51-143% for SUS universities. (Apparently some universities enrolled students for college preparatory courses in writing and math even though their placement test scores were above the required cut-off scores.) Why didn't all, or almost all, students eligible for college preparatory instruction receive it? It makes little sense to enroll these students in college level courses while ignoring their deficiencies in college-level academic skills.

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* For the purpose of this study, "entering freshmen" were defined as those students who were enrolled in the institution for the first time for college-credit courses; if college credit had been earned elsewhere, it had to be less than 15 semester hours.

** Student Achievement of College-Level Communication and Computation Skills in Florida: 1984-85. Report of the Standing Committee on Student Achievement, Florida Department of Education. Tallahassee, FL: November 1985.

Placement Testing Requirement

Provisions of State Board of Education Rules 6A-10.0313(3) and 6A-10.0314(2), FAC, require that community colleges and state universities provide students entering college-credit programs with entry-level counseling which uses scores derived from tests which measure the communication and computation skills listed in Rule 6A-10.031, FAC.

The number of approved placement tests has been reduced. Beginning in January 1985, first-time-in-college applicants to community colleges and universities intending to enter degree programs should be tested prior to the completion of registration, using one or more of the tests listed below, and be placed in college-preparatory instruction if the test results indicate the need. The tests are: (a) ACT, (b) ASSET, (c) MAPS, and (d) SAT.* Cut-off scores on each of these tests have also been adopted by the State Board of Education.

Placement Test Data Reporting for 1985-86

When the College-Level Academic Skills Project was initiated, the Standing Committee on Student Achievement, in cooperation with the CLASP office, prepared the questionnaires which were used to obtain data on placement testing and course placement. It did so upon request from the Commissioner of Education's office; this was done from 1982 to 1985.

In 1985-86, the Division of Community Colleges and SUS Board of Regents surveyed their respective institutions regarding placement testing. A decision was made wherein the two divisions would do their own report rather than through the Standing Committee as in the past. In light of this, no placement and testing data will be reported herein.

Placement testing and course placement are important elements of Florida's educational quality improvement strategy. Appropriate data needs to be collected to determine whether these practices are being implemented and are working effectively. Questions which should be asked and answered with data collected from each community college and state university include:

- o Do freshmen have required placement test scores at entry?
- o How many freshmen students require preparatory instruction at entry?
- o How many freshmen students who require preparatory instruction receive it?

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* Readers should bear in mind that the four tests listed above measure some, but not all, of the skills measured by the CLAST. Furthermore, course placement can no longer be done on the basis of "other assessment procedures." Authorization to use "other assessment procedures" expired on December 31, 1985.

- Are the college-preparatory instructional needs of minority students being addressed by community colleges and SUS universities?
- Are placement testing and placement practices working effectively?
- What is the retention rate of minority students? Nonminority students?
- What is the status of freshmen college-level academic skills at entry into postsecondary education?
- Have entering freshmen's skills in communication and computation improved?
- Are institutions in compliance with placement testing statutes and rules?

It may well be that current administrative code needs to be revised to make reporting requirements regarding placement testing and course placement more explicit. Placement testing and course placement are useful educational practices, especially for offering and maintaining equality of educational opportunity for Florida's citizens.

PART 2. STATEWIDE AND INSTITUTIONAL PERFORMANCE ON CLAST, 1985-86

The Articulation Coordinating Committee is required by State Board of Education Rule 6A-10.0311, FAC, to report data relative to the achievement of communication and computation skills by students in community colleges and state universities in Florida. Data presented in Part 2 describe the performance of community college and SUS university sophomores on: (1) a statewide basis, and (2) by institution. A data summary is also presented for private colleges that participated in CLAST testing in 1985-86.

Statewide Results

2.1 What is the level of sophomore college-level skills in communication and computation in 1985-86?

The mean scale scores for each CLAST subtest are reported in Table 2.1. As can be seen in Table 2.1, the mean scale scores were as follows: for Computation, 310; for Reading, 318; for Writing, 319; and for the Essay, 5.1. These results are based on 34,722 examinees enrolled at either a Florida community college or SUS university.

Table 2.1

Mean CLAST Subtest Scores for Public Postsecondary Institutions in October 1982, and Academic Years 1983-84, 1984-85 and 1985-86

Subtest	Oct-82*	1983-84*	1984-85*	1985-86*
Computation	300	301	311	310
Reading	300	308	320	318
Writing	300	315	317	319
Essay	4.7	4.9	5.0	5.1
Number of Students	12,393	42,420	34,501	34,722

* First-time examinees only (Standards for passing CLAST were first implemented in August 1984.)

In October 1982, CLAST subtest scores were standardized to have a mean of 300 for the three multiple-choice subtests, and a 4.7 for the Essay. By comparing 1985-86 mean scale scores with the 1982 baselines, it may be concluded that current performance on CLAST is being maintained at levels substantially higher than the baseline year.

2.2 Is there improvement in college level skills achievement?

As can be seen in Table 2.1, scale score means for CLAST subtests showed steady improvement in 1983-84 and 1984-85. Data for 1985-86 suggests a mixed picture. While performance in Writing (scale score mean of 319) and Essay (scale score mean of 5.1) continued to increase, small declines were observed in Computation (scale score mean of 310) and Reading (scale score mean of 318). It may well be that writing proficiency is now being stressed in instruction. Why performance in Computation and Reading declined slightly is unclear.

2.3 What is the CLAST scale score performance of private postsecondary institutions participating in the College-Level Academic Skills Project?

Sophomores in Florida's private colleges and universities began to take the CLAST in 1984-85. Beginning in August 1985, students receiving state financial aid in private institutions had to obtain passing scores or enroll in a course to remediate basic skills deficiencies to maintain their eligibility for state financial aid awards (6A-7.17, FAC).

Data showing CLAST performance for private university and college students is displayed in Table 2.2. Although it is tempting to compare private and public institution CLAST performance, this should not be done. The public institution CLAST scale score means reported in Table 2.1 are based on all sophomores tested in 1985-86, whereas the scale score means for the private postsecondary institutions in Table 2.2 are based on those students who needed to take CLAST to remain eligible to receive state financial aid. It is misleading to

Table 2.2

Private College and University CLAST Scale Score Means for 1984-85 and 1985-86

CLAST Subtest	1984-85	1985-86
Computation	307	303
Reading	319	319
Writing	316	317
Essay	5.2	5.2
Number of Students	1,583*	3,717*

* First-time examinees only

compare data based on a complete population of sophomores with data from a small segment of another population of sophomores.

As can be seen in Table 2.2, the number of students taking CLAST in private postsecondary institutions has increased (from 1,583 in 1984-85 to 3,717 in 1985-86). This is because at least two of the private institutions are beginning to require all of their sophomores to take CLAST. Whether other private institutions will follow their lead remains to be seen.

Institutional Results

2.4 What is the level of communication and computation skills of examinees enrolled at each public institution?

Mean CLAST subtest scores for 1984-85 are presented by institution in Table 2.3. The scale score mean for all public institutions combined is shown, also. These statewide figures may be used to determine how well sophomores at a given college or university are performing relative to the average for community colleges, for SUS universities, or compared to the statewide average for all college sophomores.

In October 1982, CLAST subtests were standardized to have a scale score mean of 300 on Computation, Reading, and Writing and 4.7 on the Essay. In 1985-86, only two out of 37 institutions had a scale score mean of less than 300 on the Computation subtest, no institutions had a scale score mean of less than 300 on the Reading and Writing subtests, only two had a mean Essay scale score of less than 4.7, and one had an Essay scale score mean right at 4.7.

Computation. The range for institutional Computation subtest mean scale scores was from a low of 295 to a high of 329. The statewide average for all public institution sophomores was 308. Community college and SUS university sophomores scored right at the statewide average of 308.

Reading. The range for institutional Reading subtest mean scale scores was from a low of 300 to a high of 328. The statewide average for Reading was a scale score of 317. The mean Reading scale score for community colleges was 317, and 319 for SUS universities.

Writing. The range for institutional Writing subtest mean scale scores was from a low of 306 to a high of 335. The statewide average for Writing was a scale score of 318. The mean Writing scale score for community colleges was 317 and 320 for SUS universities.

Essay. The range for institutional Essay subtest mean scale scores was from a low of 4.6 to a high of 5.6. The statewide average for Essay was a scale score of 5.1. The mean Essay scale scores for community colleges and SUS universities were the same, i.e., 5.1.

Table 2.3

Mean CLAST Subtest Scale Scores by Public Postsecondary Institutions in Florida for 1985-86, First-time Examinees Only

Institution	No. of Students	Computation	Reading	Writing	Essay
Brevard	933	306	320	317	5.1
Broward	1407	306	310	312	4.9
Central Florida	219	308	318	320	5.1
Chipola	177	310	311	320	5.2
Daytona	490	306	320	316	5.2
Edison	561	304	318	317	5.2
FAMU	395	297	300	306	4.6
FAU	1,159	304	315	319	5.0
FIU	1,286	304	312	314	4.9
Fl CC at Jax	1,091	304	314	315	4.9
Florida Keys	88	305	318	315	4.7
FSU	2,960	310	322	322	5.3
Gulf Coast	300	313	319	321	5.2
Hillsborough	656	316	315	314	5.0
Indian River	230	329	325	335	5.6
Lake City	125	307	321	322	5.2
Lake Sumter	139	312	320	325	5.3
Manatee	540	310	319	320	5.2
Miami-Dade	3,282	310	303	307	4.6
North Florida	118	295	307	309	4.8
Okaloosa-Walton	324	310	322	317	5.0
Palm Beach	958	302	314	313	4.9
Pasco-Hernando	173	313	319	320	5.3
Pensacola	733	306	315	320	4.9
Polk	357	312	317	317	5.1
St. Johns River	93	309	323	318	4.9
St. Petersburg	1,380	309	320	317	5.1
Santa Fe	717	307	315	316	5.2
Seminole	430	312	316	315	5.1
South Florida	75	302	315	315	4.8
Tallahassee	784	304	314	312	5.0
UCF	1,703	313	323	322	5.2
UF	5,115	320	328	329	5.3
UNF	550	305	323	322	5.3
USF	3,295	309	322	321	5.2
UWF	801	305	322	326	5.3
Valencia	1,078	306	317	315	5.1
Community Colleges	17,458	308	317	317	5.1
SUS Universities	17,264	308	319	320	5.1
All State Institutions	34,722	308	317	318	5.1

Analysis of institutional CLAST mean scale scores suggests that performance levels are heterogeneous irrespective of kind of institution. There are community colleges whose students perform on CLAST as well as the highest SUS university sophomores. Similarly, the reader will also find some SUS universities intermixed with community colleges at the lower end of the scale score distributions.

PART 3. DEGREE TO WHICH THE 1984 CLAST STANDARDS WERE MET

Beginning August 1, 1984, second semester college sophomores in Florida were required to meet minimum standards on all four subtests of the CLAST (Rule 6A-10.0312). The tables which follow are based on CLAST data which were collected in October 1985, March 1986, and June 1986. Data presented in Part 3 describe the performance of community college and university examinees on a statewide basis.

Statewide Results

3.1 In 1985-86, what percentage of first-time test takers passed all four CLAST subtests based on the 1984 standards?

Table 3.1

Percentage of Examinees* in 1985-86 Meeting 1984 CLAST Standards, All Examinees and by Ethnic or Racial Group

Group	Number Tested	Percent Meeting '84 Standards
All Examinees	34,722	88%
Whites	26,983	93%
Blacks	2,072	69%
Hispanics	2,361	82%
Asians	341	79%
Amer. Indian	86	90%
Other, including Foreign Nat'ls.	2,879	65%

* First-time examinees only

As can be seen in Table 3.1, 88% of all first-time examinees in 1985-86 met the '84 CLAST standards. But analysis of the performance of racial and ethnic groups reveals varying success rates. For example, 93% of the White examinees passed all four subtests. Hispanics and American Indians had the next highest passing rates, 82% and 90% respectively, followed by Asians who had a 79% passing rate. Blacks and Foreign Nationals had the most difficulty as only 69% and 65%, respectively, passed all four CLAST subtests. The picture is more variable when specific CLAST subtests and racial or ethnic groups are considered, however.

3.2 In 1985-86, what percentage of examinees passed each CLAST subtest based on 1984 standards?

Data in Table 3.2 shows the passing rate on each of the CLAST subtests for all examinees and by ethnic or racial group. Analyzing these data allows us to determine whether identifiable groups are having difficulty in mastering specific CLAST skill areas. Examinees taken as a whole appear to do well with the exception of Essay writing (see Table 3.2).

Table 3.2

Percentage of Examinees Enrolled at Public Postsecondary Institutions Passing Each CLAST Subtest Based on 1984 Standards, All Examinees and by Ethnic or Racial Group, for Academic Year 1985-86

Group	Computation	Reading	Writing	Essay
All Examinees* (N = 34,722)	97%	97%	97%	92%
Whites (N = 26,983)	98%	98%	98%	96%
Blacks (N = 2,072)	89%	88%	91%	80%
Hispanics (N = 2,361)	96%	94%	94%	87%
Asians (N = 341)	97%	92%	94%	82%
Amer. Ind. (N = 86)	97%	94%	98%	92%
Other, including Foreign Nat'ls (N = 2,879)	96%	88%	89%	72%

*First-time examinees only

Computation. Ninety-seven percent (97%) of all examinees met the '84 standard for Computation.

Reading. Ninety-seven percent (97%) of all examinees met the '84 standard for Reading.

Writing. Ninety-seven percent (97%) of all examinees met the '84 standard for Writing.

Essay. Ninety-two percent (92%) of all examinees met the '84 standard for the Essay. Thus, the Essay subtest appears to be the most difficult of the CLAST skill areas.

3.3 In 1985-86, how were ethnic or racial groups affected by the 1984 standards?

Whites. White students had uniformly high performance in Computation, Reading, and Writing as 97% met the '84 standards in each area. Their lowest area was Essay writing where 96% met the '84 standard.

Blacks. A concern should be noted in Essay writing for Black students; only 80% of them achieved the '84 standards on the Essay subtest. Their passing rates were also relatively low on the Computation subtest (89%) and in Reading (88%). Their highest area of CLAST performance was on the Writing subtest; 91% met the '84 standard for Writing.

Hispanics. Hispanic student performance on the CLAST subtests tended to be in the 94%-96% pass range for three of the four subtests. Their lowest area of performance was the Essay where 87% met the '84 standards.

Asians. Asian students displayed some difficulty on the Essay subtest of the CLAST as only 82% of them passed it. On the other hand, their performance on the remaining three subtests was 92% or higher. Essay writing continues to be lowest area of performance for students with foreign backgrounds.

American Indians. American Indians had little difficulty with CLAST subtests; their performance rates were 92% or higher. Not surprisingly, Essay writing, while relatively high, was the lowest area of performance.

Other, including Foreign Nationals. Essay writing is problematic for Foreign Nationals, as only 72% passed this CLAST subtest the first time they took it. They also have some difficulty passing Reading (88%) and Writing (89%). Computation presents few problems for Foreign Nationals as 96% of them met the '84 standard during 1985-86.

From a curricular and instructional perspective, these data suggest that Essay writing is the area in which students have the most difficulty. The students having the most difficulty with Essay writing are Black students and students with foreign backgrounds.

3.4 Has there been improvement in the number meeting the 1984 CLAST standards?

The answer to this question is a qualified "yes." (See Table 3.3) By applying the '84 CLAST standards to the three prior years and to 1985-86, we find that 72% passed in 1982-83, 80% passed in 1983-84, 88% passed in 1984-85 and 88% passed in 1985-86. So after steady gains the previous three years, performance seems to have leveled off in 1985-86.

Table 3.3

Number and Percent of Examinees* Enrolled at Public Postsecondary Institutions Meeting the 1984 Standards in 1982-83, 1983-84, 1984-85 and 1985-86

	1982-83	1983-84	1984-85**	1985-86
Percent Meeting '84 Stds.	72%	80%	88%	88%
Number of Examinees	41,844	42,420	34,501	34,722

* First-time examinees only. ** CLAST standards went into effect for the first time on August 1, 1984.

It must be acknowledged that CLAST standards did not go into effect until August 1984. Therefore, questions could be raised as to whether students taking CLAST prior to that time were sufficiently motivated to do their best since all they needed to do was take the test to meet the college-level academic skills requirement. Now that meeting performance standards is a requirement, we would expect student motivation to be uniformly high. While CLAST performance did increase after the '84 CLAST standards went into effect, performance appears to have reached a plateau in 1984-85 and 1985-86. Why this is the case is not clear.

3.5 How many students will be delayed in receiving their Associate of Arts degrees through failure to meet the 1984 standards?

Two thousand two hundred and sixty-six (2,266) community college sophomores (or 13%) failed one or more CLAST subtests. These students may re-enroll in the appropriate communication or computation courses and then retake the CLAST subtests that were failed, and it is hoped that these students will do so. But how many will decide to drop out rather than continue? How many will transfer without the AA degree? Several institutions have reported impressions that students who fail CLAST have decided to transfer to universities without receiving the AA degree.

According to Rule 6A-10.0314(4), FAC, students who are otherwise qualified for admission to upper division status may enroll for up to thirty-six (36) semester hours in upper-level courses if they pass three out of the four CLAST subtests.

It would be helpful if community colleges would begin doing follow-up studies on students who fail CLAST to see how many remain to earn their AA degree and how many transfer to continue upper division study without the AA degree.

If a community college student transfers to a university without an AA degree, will he or she have to take additional general education courses? Under the articulation agreement, if the community college student has met the general education requirement at his or her institution but failed one of the CLAST subtests, he or she may transfer without the AA degree and not be required to enroll for additional general education courses.

Table 3.4

Number and Percent of Examinees Enrolled at Public Postsecondary Institutions Passing CLAST Subtests, 1985-86

CLAST Performance	Community Colleges		Universities		All Examinees	
	No. of Examinees	Percent	No. of Examinees	Percent	No. of Examinees	Percent
Passed 4 subtests	15,192	87.0%	15,487	89.7%	30,679	88.3%
Passed 3 subtests	1,582	9.0%	1,200	6.9%	2,782	8.0%
Passed 2 subtests	455	2.6%	323	1.8%	778	2.2%
Passed 1 subtest	164	0.9%	167	0.9%	331	0.9%
Passed 0 subtests	65	0.3%	87	0.5%	152	0.4%
Totals	17,458	100%	17,264	100%	34,722	100%

* First-time examinees only

3.6 Will SUS university upper division enrollments be affected by the numbers of SUS university students failing to meet 1984 CLAST standards?

Data displayed in Table 3.4 show that 1,777 or (10.3%) of SUS university examinees failed one or more of the CLAST subtests on their first attempt. The 1,200 (or 6.9%) who passed 3 out of 4 CLAST subtests may enroll for a total of 36 semester hours of upper division courses before having to pass all 4 of the CLAST subtests. This leaves 577 (or 3.3%) ineligible to enroll for upper division courses. Thus, failing two or more CLAST subtests is not likely to have much impact on upper division enrollment unless all of these students were at the same SUS university. Clearly, this is not the case here.

Two kinds of data analyses need to be done regarding the impact of failing CLAST. The first is to determine how many students pass CLAST after one, two, or three retakes. The second is to conduct

studies at each university to determine impact on upper division enrollment using assumptions which are based on local experience such as actual transfer rates.

Failing the CLAST may also have an impact on students receiving financial aid from the state of Florida.* Data should be collected by institutions to determine how many students' financial aid is being affected and whether these students are receiving remedial instruction to acquire the college-level skills in communication and computation.

3.7 What percentage of examinees passed when they retook CLAST subtests, based on 1984 standards?

A special study was done by staff in the Knott Data Center to determine how successful students are when they retake CLAST subtests which they had failed earlier. The method used was that of cohort analysis. Cohort analysis produces the most interpretable results because the same students are followed through time. Because of this, conclusions cannot be influenced by loss of subjects who dropped out of the study.

Results presented in Table 3.5 display data for 13,000 sophomores who initially took CLAST in September 1984. Eighty-seven percent (87%) of these sophomores passed on their first attempt. Subsequently, those who failed one or more subtests re-took CLAST either in March, June, or October of 1985. By examining the cumulative totals, we can observe the number and rate at which re-takers successfully met the '84 standards.

Computation. The initial passing rate on the Computation subtest was 98%. It is apparent that sophomores who retake the Computation subtest do pass it as 62 retakers met the '84 standards in March 1985, 15 retakers met the '84 standards in June 1985, and 25 additional retakers were successful in October 1985. (The percentage figure does not change because of the small numbers of students who retook this subtest relative to the size of the cohort.)

Reading. The initial passing rate on the Reading subtest was 96% for the sophomores who took CLAST in September 1984. As can be seen in Table 3.5, retakers are successful as 209 passed when they took the Reading subtest in March 1985. Thirty-eight (38) retakers passed in June 1985, and 25 additional retakers passed in October 1985. Thus, the number of sophomores increased from 96% passing on the initial testing to 98% passing after three more administrations of CLAST.

Writing. Ninety-seven percent (97%) of first-time test takers passed the Writing subtest in September 1984. One hundred twenty-eight (128) were successful in passing this subtest when they retook it in March 1985. Thirty-one (31) retakers passed in June 1985, and 28 additional retakers passed in October 1985, thus bringing the cumulative percentage passing up to 98%.

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* See 6A-7.117(1), FAC, for state student aid requirements.

Essay. The Essay subtest has been the most difficult one for sophomores to pass. In September 1984, 91% of the first-time test takers met the '84 standards. Three hundred and twenty-five (325) retakers were successful in passing the Essay subtest in March 1985. Seventy more passed it in June 1985, and 89 additional retakers passed in October 1985 which brought the cumulative percentage passing from 91% on the first try to 95% passing one year later.

Passing CLAST. To pass CLAST, a student must achieve the standard on each of four subtests. The percentage of students who passed all four subtests the first time they took it in September 1984 was 87%.

Table 3.5

Cumulative Number and Percentage of a Sophomore Cohort Passing CLAST in September 1984 or Passing on a Retest in March, June or October of 1985, by Subtest and for CLAST as a Whole: 1984 Standards

Subtest/Test	Took CLAST First-Time SEP 84	Retook and Passed CLAST Subtests: in MAR 85	in JUNE 85	in OCT 85
Computation	98%	98%	98%	98%
No. Passing	12,690	62	15	25
Cum. Total	12,690	12,752	12,767	12,792
Reading	96%	98%	98%	98%
No. Passing	12,496	209	38	25
Cum. Total	12,496	12,705	12,743	12,768
Writing	97%	97%	98%	98%
No. Passing	12,546	128	31	28
Cum. Total	12,546	12,674	12,705	12,733
Essay	91%	93%	94%	95%
No. Passing	11,801	325	70	89
Cum. Total	11,801	12,126	12,196	12,285
Passed CLAST	87%	91%	92%	93%
No. Passing	11,365	505	101	123
Cum. Total	11,365	11,870	11,971	12,094
Number in Cohort	13,000	13,000	13,000	13,000

In March 1985, a large number of retakers, 505, were able to meet the '84 standards when they retook one or more of the subtests which they had failed earlier. In June 1985, 101 retakers successfully retook required subtests, and 123 additional retakers were successful in October 1985, for a cumulative percentage of 93% who met the '84 standards one year after intially taking the CLAST.

It seems clear, then, that motivated students who receive additional instruction and/or practice in computation, reading, and writing can achieve CLAST standards if given the opportunity. It seems reasonable to expect that students will achieve levels of performance that are reasonably high if they are expected to and are given sufficient opportunities to acquire, practice, and demonstrate these skills.

3.8 Are institutions in compliance with CLAST-related statutes and rules?

No specific data were collected to determine degree of compliance. To be in compliance with CLAST-related statutes and rules, each community college and university must have curriculum and instruction that provide postsecondary students with opportunities to acquire college-level skills in communication and computation.

Whether institutions are in compliance with related rules and statutes may be inferred from current passing rates on the CLAST. But even then, CLAST data must be carefully interpreted because the academic ability and prior education of entering students must be taken into account before making judgments. This is particularly evident for institutions that have large numbers of students for whom English is a second language. Clearly, institutions with more able students will have to do less instruction on CLAST skills than institutions that have large numbers of educationally disadvantaged students. Institutions that have relatively larger numbers of students failing CLAST will have to analyze systematically their placement procedures, curriculum, and instruction to determine what, if any, changes would increase their students' ability to use computation and communication skills effectively.

Institutional Results

3.9 What percentage of examinees in a given institution passed CLAST in 1985-86?

Data for each institution can be found in Appendix A.

PART 4. IMPLICATIONS OF CURRENT STUDENT PERFORMANCE REGARDING ACHIEVEMENT OF THE 1986 AND 1989 CLAST STANDARDS

The State Board of Education adopted the philosophy of raising CLAST standards in increments. An incremental strategy to raising standards meets the social requirements for equal educational opportunity and recognizes that curricular and instructional change in postsecondary education will take time.

When the State Board of Education adopted the CLAST standards, it did so with the understanding that the 1984 standards were at a level which was commensurate with where students and the curriculum were at that time. The standards which were adopted for 1986 reach but one-third of the way to the desired standards which are scheduled to be put into effect in 1989. Thus, the amount of improvement needed to go from 1984 to 1986 is smaller than the amount needed to go from 1986 to 1989 (see Table 4.1).

Table 4.1

The 1984, 1986 and 1989 College-Level Academic Skill Standards Expressed in Terms of CLAST Scale Scores

CLAST Subtest	CLAST Standards for: 1984*	1986*	1989*
Reading	260	270	295
Writing	265	270	295
Computation	260	275	295
Essay	4	4	5

* The cut-off scores go into effect on August 1 of the given year.

The approximate cut-off scores (expressed in terms of percent of items right) for the '89 standards are as follows:

- o Computation, 61-70%
- o Reading, 69-78%
- o Writing, 77-86%
- o Essay, a score of 5 (on a scale which ranges from 2 to 8).

The percentage of items which must be answered correctly to pass CLAST on a given test administration varies according to the item difficulty for that particular administration. The number of correct items needed

to pass would be slightly higher if the test items were easy, or slightly lower if the test items were difficult. Previous experience suggests that the percentage needed to pass would fall somewhere in the ranges given above.

One way to determine whether institutions need to consider changing their existing curriculum and instruction is to compare current student CLAST performance against the standards proposed for 1986 and those proposed for 1989. The discussion which follows describes possible CLAST pass-fail rates based on the higher standards which went into effect in August 1986, and will be raised again in August 1989.

These projections were derived by applying the '86 and '89 standards to CLAST scores observed in 1985-86. These projections were done to examine possible impacts of CLAST if student and institutional performance stabilizes and does not increase beyond current levels.

Statewide Results

4.1 What are the implications of student performance in 1985-86 regarding future pass-fail rates?

Students in 1985-86 did fairly well when the '86 standards are applied as 83% were able to meet them. The picture is less positive when the '89 standards are applied to the 1985-86 data; only 44% are able to meet them (see Table 4.2).

Eighty-three percent (83%) sounds like a respectable level of performance. It is until one realizes that 17% (the percentage failing the '86 standards) of 34,722 students is 5903 students--a sizable number to remediate. Fifty-six percent (the percentage failing the '89 standards) of 34,722 is 19,444 students who will require some kind of remediation if things continue to remain as they are.

The implications of these projections are fairly self-evident. Much remains to be done to ensure that each institution does its utmost to analyze its curriculum and instructional practices in the area of college-level academic skills so that when students become sophomores, they will be able to meet the '86 and especially the '89 standards.

4.2 How will racial or ethnic groups be affected by the 1986 standards? By the 1989 standards?

Whites. Eighty-eight (88%) of the 1985-86 white examinees were able to meet the '86 standards (see Table 4.2). The situation is not as favorable when the '89 standards are considered, however, as only 49% were able to meet them. Therefore, meeting the standards in 1989 may be problematic for even the white students unless they are able to increase substantially their levels of achievement in communication and computation in the future.

While the reader may be tempted to leap ahead to speculate about the

impact of the '86 and the '89 standards on minority group students, the fact remains that the vast majority of students requiring remediation will be from the white majority. If current levels of performance do not increase, 3238 white sophomores will require remediation when the '86 standards go into effect and 13,761 white sophomores will require remediation when the '89 standards go into effect.

Table 4.2

Percentage of 1985-86 Examinees Meeting the 1986 and 1989 CLAST Standards*, All Examinees** and by Racial or Ethnic Group

Group	Number Tested	Percent Meeting '86 Standards	Percent Meeting '89 Standards
All Examinees	34,722	83%	44%
Whites	26,983	88%	49%
Blacks	2,072	57%	18%
Hispanics	2,361	73%	33%
Asians	341	74%	38%
Amer. Indian	86	81%	41%
Other including Foreign Nat'ls	2,879	58%	22%

* These results were derived by applying the '86 and the '89 standards to 1985-86 CLAST data. ** First-time examinees only.

Blacks. Only 57% of the 1985-86 Black examinees would be able to meet the '86 standards and of those, only 18% would be able to meet the '89 standards if they were implemented in 1985-86. The number of Black students affected would be 891 for the '86 standards, and 1,699 for the '89 standards.

Hispanics. The '86 standards do not appear to pose serious problems for 1985-86 Hispanic students as 73% were able to meet them. However, the '89 standards appear to pose more of a problem as only 33% were able meet them. The number of Hispanic students affected would be 637 for the '86 standards, and 1,582 for the '89 standards.

Asians. A majority of Asian students (74%) met the '86 standards and of those, only 38% of them were able to meet the '89 standards. Asians comprise a relatively small number of the enrollments. As a result, only 89 would be affected by the '86 standards, and 211 would be affected by the '89 standards.

American Indians. The majority of American Indian examinees (81%) met the '86 standards. But they, too, face a serious challenge from the '89 standards as only 41% were able to match them. The number of American Indians enrolled was 86 in 1985-86. The number failing would be small compared to the larger numbers of Whites, Blacks, Asians and Foreign Nationals.

Other, including Foreign Nationals. Other, including Foreign Nationals, appear to be facing the same challenge as Black students as only 58% were able to meet the '86 standards. The number passing dropped to 22% when the '89 standards were applied. The number of Foreign Nationals requiring remediation is estimated to be 1,209 for the '86 standards and 2,246 for the '89 standards.

While the number of minority students is relatively small, one of the implications of their failure rates is that the level of effort to remediate these students will be much greater than for white students. This would be the case especially for those for whom English is a second language.

4.3 For which CLAST subtests are difficulties likely to be encountered?

Table 4.3 displays projected passing rates for each of the CLAST subtests when the '86 and the '89 standards were applied to 1985-86 data. Analysis of these data projections suggests that most groups will have little difficulty in meeting the '86 standards for each subtest. The '89 standards, on the other hand, pose a substantial challenge to faculty and students--especially in the areas of computation and essay writing.

Computation. In general, the '86 standard for computation does not appear to be a problem for any group except Blacks as only 72% of them earned a passing score on the first try. The '89 standards pose a challenge for all groups as their passing rate ranges from a low of 40% for Blacks to a high of 76% and 77% for Whites and Asians, respectively. These projected passing rates suggest that concerted efforts need to be made in each community college and university to increase the effectiveness of curriculum and instruction in computation. Otherwise, each campus will have to do its part to remediate its share of the 2,228 who are projected to fail the '86 standards, and the 9,375 who are projected to fail the '89 standards if CLAST performance continues at present levels.

Reading. The '86 standard does not appear to pose a challenge for Whites, Hispanics, American Indians, or Asians as from 87% to 97% would be able to meet this standard in Reading. But Blacks and other, including Foreign Nationals, may have some difficulties with the Reading subtest as 80% of them would meet the '86 standard for it. Not surprisingly, fewer are able to meet the '89 standards for Reading as the passing rates range from a low of 45% for Foreign Nationals to a high of 83% for Whites.

Table 4.3

Percent of 1985-86 Examinees Meeting CLAST Subtest Standards Based on 1986 and 1989 Standards*, All Public Institutions**

Group	Computation		Reading		Writing		Essay	
Standards:	1986	1989	1986	1989	1986	1989	1986	1989
All Examinees (N = 34,722)	92%	73%	94%	77%	95%	79%	92%	65%
Whites (N = 26,983)	94%	76%	97%	83%	97%	84%	96%	70%
Blacks (N = 2,072)	72%	40%	80%	49%	87%	59%	80%	44%
Hispanics (N = 2,361)	89%	69%	89%	63%	91%	70%	87%	54%
Asians (N = 341)	94%	77%	87%	67%	92%	71%	82%	54%
Amer. Ind. (N = 86)	81%	67%	93%	80%	95%	83%	92%	58%
Other, including Foreign Nat'ls (N = 2,879)	88%	65%	80%	45%	85%	58%	72%	41%

* These results were derived by applying the '86 and the '89 standards to 1985-86 CLAST data. ** First-time examinees only.

Writing. Most of the racial or ethnic groups appear ready to meet the challenge of the '86 standards for the Writing subtest. The 1985-86 examinees range from a low of 85% to a high of 97% passing. Again, there is a noticeable drop in passing rates when the '89 standards are applied to 1985-86 data. All groups will have to improve their performance, but the ones with the farthest to go are Blacks with a projected passing rate of 59% and Foreign Nationals with a projected passing rate of 58%. The remaining groups range from 70% to 84% passing.

Essay. The '84 and the '86 standards for the Essay subtest are identical, i.e., a scale score of 4. As a result, the passing rates for the 1985-86 sophomores will be the same whether they are measured against the '84 or the'86 standards. Looking across racial and ethnic groups, we find that 96% percent of the Whites and 92% of the American Indians would meet the '86 standards for Essay writing. The remaining groups would range from 87% passing (for Hispanics) to lows of 72% passing for Foreign Nationals and 80% for Blacks.

There is a substantial drop when '89 standards are applied to the 1985-86 data. Whites and American Indians would be able to pass the '89 standards at rates of 70% and 58% respectively. Hispanics and Asians would pass the Essay at rates of 54% and 54% respectively.

Blacks and Foreign Nationals would have less than a majority passing the '89 standards--their rates being 44% and 41%, respectively. Thus, there will be less of a challenge to meet the '86 standards but a substantial challenge to meet the ones that will go into effect in 1989.

The implications of failure rates for the Essay subtest are significant. Teaching writing skills is a labor intensive process because papers must be read individually, detailed feedback needs to be given, and conferences with the student writer are often used. If the projected failure rates come true, then 12,153 sophomores will require remediation when the '89 standards go into effect--assuming that student performance remains at the levels observed in 1985-86.

4.4 How many students will be delayed in receiving their Associate of Arts degrees by failure to meet the 1986 standards? By failure to meet the 1989 standards?

Applying the '86 and '89 standards to 1985-86 data suggests that there will be a substantial number of students who would be delayed in receiving their AA degrees although the implications of this happening are difficult to determine. As can be seen in Table 4.4, approximately 19.5% failed one or more subtests and would therefore not meet the CLAST requirement for the AA degree based on '86 standards. This number increases dramatically to 61.5% when the '89 standards are applied to the 1985-86 data.

Examinees who meet all requirements for the AA degree and who pass three out of four CLAST subtests may enroll for up to 36 semester hours of upper-division courses before they must pass all four parts of CLAST. Examinees who fail 2 or more CLAST subtests may continue to enroll in postsecondary education but not for upper-division courses. It is assumed that they would be encouraged to seek out instruction in communication and computation to prepare themselves to retake and pass the subtests which they failed on the first try. The number who would fail two or more CLAST subtests was 1186 (or 6.8%) when the '86 standards are applied, and 6086 (or 34.8%) when the '89 standards are applied to the 1985-86 data.

4.5 How will upper division enrollment be affected by the number of students failing to meet the 1986 standards? The 1989 standards?

Data displayed in Table 4.5 show that approximately 10.1% (or 1,747) university examinees would be able to pass three out of four CLAST subtests based on the '86 standards. Under current rules, these students could enroll for up to 36 semester hours of upper-division courses before they must pass all four CLAST subtests. Approximately 5.3% (or 908) university examinees would fail two or more CLAST subtests based on the '86 standards. Under present rules, these students could not enroll for upper-division courses. Presumably, they would be encouraged to enroll for lower-division courses in communication and computation so that they could meet the CLAST requirement as soon as possible and then move on to take upper-division courses.

Table 4.4

Number and Percent of 1985-86 Community College Examinees* Passing CLAST Subtests, Based on 1986 and 1989 Standards**

CLAST Performance	1986 Standards Number	1986 Standards Percent	1989 Standards Number	1989 Standards Percent
Passed 4 subtests	14,066	80.5%	6,729	38.5%
Passed 3 subtests	2,206	12.6%	4,643	26.5%
Passed 2 subtests	717	4.1%	2,945	16.8%
Passed 1 subtest	319	1.8%	1,894	10.8%
Passed 0 subtests	150	0.8%	1,247	7.1%
Totals	17,458	100%	17,458	100%

* These results were derived by applying the '86 and the '89 standards to 1985-86 CLAST data. ** First-time examinees only.

The number of 1985-86 university examinees who passed only three out of four CLAST subtests based on '89 standards is 4,496 (or 26%). An approximately equal number, 4312 (or 24.9%), failed two or more subtests under the '89 standards. Since the latter group is already on campus, it may be assumed that they would be encouraged to enroll in lower division courses that would enable them to pass all four CLAST subtests. Therefore, one financial impact that might be anticipated is a funding differential between FTE generated by lower division enrollments that might otherwise have been upper divison FTE. At this point it is not clear whether such students will choose to drop out because of failing CLAST. Dropping out would have a much greater financial impact than merely being restricted to enrollment in lower division courses.

Table 4.5

Number and Percent of 1985-86 University Examinees* Passing CLAST Subtests, Based on 1986 and 1989 Standards**

CLAST Performance	1986 Standards Number	1986 Standards Percent	1989 Standards Number	1989 Standards Percent
Passed 4 subtests	14,609	84.6%	8,456	48.9%

Passed 3 subtests	1,747	10.1%	4,496	26.0%
Passed 2 subtests	476	2.7%	2,177	12.6%
Passed 1 subtest	276	1.5%	1,277	7.3%
Passed 0 subtests	156	0.9%	858	4.9%
Totals	17,264	100%	17,264	100%

* First-time examinees only. ** These results were derived by applying the '86 and the '89 standards to 1985-86 CLAST data.

4.6 Have Florida's public postsecondary institutions taken steps to use CLAST subtest data to improve their curriculum and instruction?

CLAST subtest performance data can be used to identify the strengths and weaknesses of an institution's curriculum and instruction in communication and computation. What must be done is to make these data readily available to faculty and administrators on each campus. In addition, these data must be displayed in ways that will allow students, faculty, and administrators to pinpoint areas needing improvement. The role of the Department of Education may be crucial here.

While CLAST printouts and data tapes are routinely provided to each campus, does each campus have someone in charge of distributing the data in displays that can be used for instructional and curricular improvement? Does each campus have the computer programming capability to extract data from data tapes in a timely and efficient manner? If not, how could this process be facilitated?

One possible solution would be for the Department of Education to do the programming that would produce data displays and student lists that would be useful for student advising and institutional decision-making. These data summaries could be made accessible to each campus via the Florida Information Resources Network (FIRN). This kind of data support could save months, if not years, of delay in making CLAST data available to the people who need it--the faculty, the students, and the administrators.

4.7 Are the '89 standards too high?

What are the chances that most of Florida's college sophomores will be able to meet the '86 and '89 standards when the time comes? The prospects of this happening depend on satisfying at least three conditions:

- o One condition would be that the secondary schools do a better job of preparing students in the college-level academic skills.

- o A second condition is that each community college and university place greater emphasis on curriculum and teaching methods which develop the required skills.

- o A third condition is that students be encouraged to continue seeking instruction in skill areas which they fail on the CLAST and then to retake them. Experience has shown that most students (from 95% to 98%) who retake CLAST subtests eventually pass them.

There are good reasons to believe that sophomore CLAST performance will increase. First, community colleges and universities have been revising their curriculum to enhance student opportunities to acquire the desired academic skills in communication and computation. Second, lower divison students are now required to enroll in "Gordon rule" courses (6A-10.030, FAC) which are intended to help students acquire the college level academic skills. And third, the legislature has provided funds to reduce class size in computation and communication courses for the purpose of increasing achievement.

Despite this note of optimism, are the '89 standards really attainable by most of Florida's college sophomores? Just how high are the '89 standards? The '89 standards are by no means elitist. The item content of the CLAST is based on subject matter that is typically taught in college preparatory courses in high school. In addition, the cut-off or qualifying scores fall short of a perfect score of 100%.

Institutional Results

The '86 and '89 standards have been applied to 1985-86 CLAST data for each public postsecondary institution. These data can be found in Appendix A.

PART 5. RECOMMENDATIONS

Based on the analysis of CLAST test scores and other data collected in 1985-86, the Standing Committee on Student Achievement recommends that the following actions be taken:

1. Appropriate administrative code should be adopted which specifies the kinds of data which should be collected regarding placement testing and course placement to answer the following questions:

- o Do freshmen have required placement test scores at entry?
- o How many freshmen students require preparatory instruction at entry to postsecondary education?
- o How many freshmen students who require preparatory instruction receive it?
- o Are the college-preparatory instructional needs of minority students being addressed by community colleges and SUS universities?
- o Are placement testing and placement practices working effectively?
- o What is the retention rate of minority students? Nonminority students?
- o What is the status of freshmen college-level academic skills at entry into postsecondary education?
- o Have entering freshmen's skills in communication and computation improved?
- o Are institutions in compliance with placement testing statutes and rules?

Examples of the kinds of data needed to answer these questions include the number who were eligible for college-preparatory instruction, the number who were enrolled in college-preparatory courses, the college-preparatory course grades for those enrolled in college-preparatory courses, the subsequent college-level course grades in communication and computation, dropout rates of freshmen and sophomores, descriptions of actual placement practices, etc.

2. Given the statute passed in 1986 which makes taking the CLAST available to all lower-division students seeking associate of arts or baccalaureate degrees, guidelines should be developed for determining access to take CLAST on an early basis.

There may be compelling reasons why qualified lower-division students should be able take the CLAST earlier than the last semester of their sophomore year. Yet allowing all lower-division students to take the CLAST earlier opens the door to increasing costs and wasting testing materials and institutional resources. For exam-

ple, institutions currently report no-show rates as high as 20-25% for any given administration of the CLAST. This means that large numbers of test booklets are printed and not used. Institutions hire testing proctors who must be paid whether students show up or not. What is to be gained by making CLAST available to any student without first checking for his or her readiness to pass? Will the no-show rate go even higher?

It could be argued that taking the CLAST early gives the student an indication of his or her readiness. This is a valid point, but there are better and less expensive ways to determine readiness than taking the CLAST. Several institutions already are using a pre-CLAST test to assess readiness. The student's admission test scores (e.g., SAT or ACT) could be checked against expectancy tables to determine the chances of that student passing. Grades earned in "Gordon rule" courses in communication and computation could also be checked to determine readiness.

The Standing Committee on Student Achievement unanimously recommends the following guidelines for assessing readiness to take CLAST early:

> To be eligible to take the CLAST earlier than the second semester of their sophomore year, lower-division students: (1) must have completed successfully their institution's required college credit courses for communication and computation, or (2) meet or exceed an empirically determined cut-off score on the approved SAT or ACT placement tests.

3. Articulation procedures should be developed for assisting community college students who fail CLAST and transfer to an SUS university.

Current experience suggests that many community college students who fail the CLAST are choosing to transfer to a university to continue upper-division study. This is permissible under current CLAST policy which allows these students to enroll for up to 36 credit hours at the upper division before having to demonstrate that they have successfully acquired college-level academic skills in communication and computation.

Articulation is needed to ensure that these students will know what institutional resources are available and gain access to them to prepare to meet CLAST requirements. Implementation of effective articulation procedures and relevant curriculum for mastering college-level skills in communication and computation is necessary for maintaining academic standards and enabling students to achieve them. Ignoring this problem can only reinforce the negative perceptions of education as reported in A Nation at Risk and the most current report by the Carnegie Commission on quality in American higher education.

4. The CLASP staff should develop summaries of CLAST performance data by skill area and by institution; these skill area reports should be disseminated to each institution participating in CLAST testing.

At long last, we are approaching the "pay-off" stages in Florida's strategy for educational quality improvement. But Florida will not receive the full benefits of its investment in student testing unless student performance data are used by the faculty to make appropriate adjustments in curriculum and instruction in communication and computation.

If institutions monitor student performance on the college-level skills in communication and computation, they will be in a position to determine which areas of curriculum and instruction need improvement. This can be done by analyzing CLAST data by broad skill area to determine areas of low performance. By analyzing CLAST performance by skill area, we can make inferences whether low scores for a particular administration were due to sampling fluctuations, measurement artifacts, or program factors such as curriculum and instruction. The effect of curricular and instructional changes can also be observed by continuously monitoring student performance data over time. The challenge now is how to disseminate the data to faculty that will allow them to interpret it in ways that are meaningful to them. Their interpretation provides the basis for curricular and instructional reforms.

Statewide summaries by broad skill area should also include the range of performance by broad skill area, and statewide averages. The state-wide figures are needed to provide a normative perspective for interpreting institutional performance and the relative difficulty of each broad skill area.

5. The reports recommended in Item 4, and other CLAST reports, should be disseminated to the Institutional Test Administrator (ITA) with instructions to forward a copy to the chief academic officer, and he or she in turn should disseminate to appropriate academic administrators and faculty.

Dissemination of information about CLASP and CLAST has been problematic because it seems to be received too late by persons who ought to have it. Now that there is a database large enough to produce meaningful results, it is urgent that analyses of these data be made by those responsible for ensuring that curriculum and instruction in communications and computation is effective.

6. The CLASP staff should produce distributions of CLAST subtest scores to determine how much, or how little, student performance must improve to meet the 1989 standards.

When the 1989 standards are applied to CLAST student data obtained in 1985-86, it appears that large numbers of students will fail one or more of the CLAST subtests. One possible interpretation is that the '89 CLAST standards are too high. A part of this interpretation is neutralized when one considers that most of the CLAST skills are taught in college-preparatory classes in high school. The interpretation that CLAST standards are too high is weakened

further when one realizes that the cut-off scores require passing somewhere between 61-86% (see page 21) of the items on a given subtest--not a perfect score as some would lead us to believe. This allows room for measurement error while still expecting students to demonstrate a relatively rigorous but less than an elitist level of performance.

There is another way to determine the magnitude of the task to meet the '89 CLAST standards, and that is to determine how many more items students need to pass in order to reach the cut-off scores. Is the number of additional items answered correctly relatively small--like 1 or 2 on the average? Is it a relatively large number like 5 or 10 more items answered correctly? At this point we cannot say because the appropriate data analyses have not been done. Implementing this recommendation beginning with the CLAST administration in fall 1986 could provide an estimate of how far institutions and students have to go to meet the '89 standards. The effort to reach the '89 standards may not be as big as we think it is.

7. A state-level panel for CLAST Standards should be convened at least one year prior to implementation of the 1989 CLAST standards; the Panel's purpose would be ". . . to review the evidence and to propose to the Commissioner of Education the changes in the score levels, if any, which appear to be needed."*

The state-level panel which recommended the cut-off scores for CLAST subtests was not unmindful of possible consequences. Therefore, they recommended an incremental strategy for raising the cut-off scores over time to allow students and institutions to adjust to the higher expectations. In their wisdom, the state-level panel also recommended reviewing the evidence prior to implementing the '89 CLAST standards. The Standing Committee on Student Achievement unanimously supports the state-level panel's recommendations and urges that it be carried out allowing sufficient time for reasoned deliberation and action if any changes are deemed necessary.

8. The CLASP staff should review CLAST reports to determine which ones should be continued, whether any new reports should be developed (see Item 4), and which current reports should be discontinued.

Compiling summaries for this annual report has frequently been delayed because data were not readily available either in the required formats or at desired levels of aggregation. There now appears to be sufficient experience to develop a series of standard reports that will be useful to institutions, the Division of Community Colleges, the SUS Board of Regents, and the Standing

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* James J. Gardner, Chairman. Report of the State-Level Panel for CLAST Standards to Commissioner Ralph D. Turlington. Mimeograph, January 5, 1984, p. 2.

Committee on Student Achievement. Participation of representatives from each of these groups should be invited to ensure that useful, user-friendly reports are produced.

9. Conferences on improving curriculum, instruction and student performance of college-level skills in communications and computation should be continued and the participation of secondary school faculty invited.

Sharing new knowledge and successful experience in helping students to achieve the college-level academic skills in communication and computation will be facilitated through sharing amongst faculty within and between institutions in Florida. The usual means for this is a conference.

Such a conference was held in Tampa in September 1986 and was attended by over 300 participants, mostly from community colleges and universities--both public and private. Clearly, one such conference is only a beginning. Annual conferences are necessary to arouse and sustain interest. Participation could be increased if they were held on a regional rather than a state-wide basis. In addition, the participation of secondary school faculty in communication and computation should be strongly encouraged.

10. Appropriate staff in the Department of Education should review the status of learner packets for interpreting CLAST subtest scores and for mastering the college-level skills in communication and computation; if none are currently available, they should determine the feasibility of designing and producing such materials for lower division students in Florida's community colleges and universities.

Several book publishers were in attendance at the first CLAST conference held in Tampa. They were there to display a variety of learning materials which have been prepared to help students prepare for CLAST. Such materials may be useful if students are clearly aware of their weaknesses in CLAST subtest areas.

What is lacking is a set of materials that could be used by students and faculty to interpret CLAST subtest scores and other related data. The Department of Education has produced such a packet for use by students and parents regarding the State Student Assessment Test (SSAT). Whether a similar approach might also work with postsecondary students should be explored.

11. Appropriate staff in the Department of Education should maintain contact through personal attendance at meetings of state councils of chief academic officers and institutional registrars to present changes and interpretations in CLAST testing policy and procedures.

While the internal operations of the College-Level Academic Skills Project are well organized and functioning effectively, maintaining

effective communications with institutions regarding operation of the program has not always been as smooth or as timely as might be desired. This has been the case especially with regard to awareness of State Board Rules and Florida Statutes regarding CLAST. Having timely oral reports made to the various councils of chief academic officers and registrars should reduce confusion and result in more uniform interpretation and implementation of CLAST policy and procedures.

12. The Articulation Coordinating Committee should review the methods for disseminating CLAST data, determine whether these dissemination practices are being carried out, and determine how CLAST data are being used for curricular and instructional improvement.

Recommendations contained in Items 4 and 5 address the importance of timely dissemination of CLAST data to institutional personnel who need it. These include faculty and administrators such as department chairs, deans, and registrars. Florida will not obtain full benefit from its testing programs unless dissemination of testing data and information is done in a timely and effective manner. Ways should be explored and implemented to ensure that useful data are received and used by institutions for the purpose of instructional and curricular improvement. Only then will Florida's educational quality improvement strategy achieve the results which everyone desires.

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APPENDIX A

PERCENT PASSING CLAST SUBTESTS AT DESIGNATED STANDARDS, BY INSTITUTION

CLAST
1985-86
PERCENT MEETING 1984-86 STANDARDS ON EACH SUBTEST
First-Time Examinees in Public Institutions
By Institution, Region, and Institution Type

	COMPUTATION	READING	WRITING	ESSAY	NUMBER TESTED
PANHANDLE REGION	96.7	96.2	96.8	92.6	6,592
Chipola Junior College	98.8	94.9	98.8	93.7	177
Florida A&M University	92.4	87.3	90.6	81.2	395
Florida State University	97.1	97.5	97.6	94.7	2,960
Gulf Coast Community College	99.3	98.3	98.3	96.0	300
North Florida Jr. College	96.6	94.0	95.7	92.3	118
Okaloosa-Walton Junior College	98.7	98.1	98.7	92.2	324
Pensacola Junior College	96.0	94.9	96.3	88.4	733
Tallahassee Community College	97.4	96.6	96.5	93.3	784
University of West Florida	95.1	96.0	96.0	92.5	801
EAST CENTRAL REGION	98.0	97.6	97.6	93.6	5,003
Brevard Community College	97.9	97.8	98.0	94.6	933
Daytona Beach Community College	97.9	98.5	98.7	93.4	490
Indian River Community College	100.0	100.0	100.0	98.6	230
Lake-Sumter Community College	99.2	97.8	97.8	96.4	139
Seminole Community College	98.6	97.9	97.6	94.6	430
University of Central Florida	98.0	97.5	97.1	93.2	1,703
Valencia Community College	97.4	96.2	96.9	91.4	1,078
SOUTH REGION	96.4	94.0	94.3	87.4	8,180
Broward Community College	97.5	96.3	94.4	89.5	1,407
Florida Atlantic University	94.9	91.8	95.6	90.0	1,159
Florida International Univ.	94.0	92.6	92.6	85.5	1,286
Florida Keys Community College	92.0	94.1	97.7	86.3	88
Miami-Dade Community College	97.6	92.9	93.7	85.4	3,282
Palm Beach Junior College	96.2	96.1	96.5	90.8	958
CROWN REGION	98.2	97.9	98.1	94.3	7,910
Central Fla. Community College	96.3	99.0	99.0	94.0	219
Fla. Community College at Jax.	96.5	94.5	95.7	90.0	1,091
Lake City Community College	100.0	100.0	98.4	94.4	125
St. Johns River Community College	96.7	98.9	97.8	91.3	93
Santa Fe Community College	98.1	97.7	97.3	94.5	717
University of Florida	98.8	98.4	98.7	95.4	5,115
University of North Florida	96.7	98.3	98.1	93.6	550
WEST CENTRAL REGION	97.6	97.5	97.4	93.6	7,037
Edison Community College	93.7	97.5	97.5	93.9	561
Hillsborough Community College	98.9	97.4	96.6	91.1	656
Manatee Community College	98.7	96.6	97.2	92.9	540
Pasco-Hernando Community College	98.8	98.2	98.2	95.9	173
Polk Community College	98.3	97.7	96.6	94.3	357
St. Petersburg Jr. College	98.6	97.9	97.8	94.1	1,380
South Florida Community College	96.0	100.0	97.3	94.6	75
University of South Florida	97.2	97.3	97.4	93.7	3,295
STATE TOTALS	97.3	96.5	96.7	92.1	34,722
State Universities	97.1	96.8	97.1	93.1	17,264
Community Colleges	97.5	96.2	96.4	91.1	17,458

CLAS',
1985-86

PERCENT MEETING DESIGNATED STANDARDS ON ALL FOUR SUBTESTS
First-Time Examinees in Public Institutions
By Institution, Region, and Institution Type

	No. Tested	1984 Stds.	1986 Stds.	1989 Stds.
PANHANDLE REGION	6,592	88.5	82.8	44.0
Chipola Junior College	177	88.7	85.3	48.5
Florida A&M University	395	73.6	65.8	25.3
Florida State University	2,960	91.3	86.7	49.5
Gulf Coast Community College	300	95.3	89.6	48.0
North Florida Jr. College	118	86.4	76.2	24.5
Okaloosa-Walton Junior College	324	90.4	84.5	40.1
Pensacola Junior College	733	83.9	79.3	40.5
Tallahassee Community College	784	88.7	82.2	37.6
University of West Florida	801	86.7	77.9	44.1
EAST CENTRAL REGION	5,003	90.5	84.7	44.3
Brevard Community College	933	91.7	85.1	40.1
Daytona Beach Community College	490	91.0	83.2	42.4
Indian River Community College	230	98.6	96.9	64.7
Lake-Sumter Community College	139	92.8	89.2	50.3
Seminole Community College	430	91.8	87.6	44.8
University of Central Florida	1,703	90.3	85.7	48.6
Valencia Community College	1,078	87.0	79.2	36.8
SOUTH REGION	8,180	81.9	74.6	33.7
Broward Community College	1,407	85.5	79.1	35.0
Florida Atlantic University	1,159	84.2	76.4	38.3
Florida International Univ.	1,286	78.6	71.1	37.7
Florida Keys Community College	88	79.5	76.1	32.9
Miami-Dade Community College	3,282	79.7	72.5	29.8
Palm Beach Junior College	958	85.8	77.5	34.1
CROWN REGION	7,910	91.9	87.6	52.6
Central Fla. Community College	219	90.4	80.3	44.7
Fla. Community College at Jax.	1,091	84.6	77.0	35.5
Lake City Community College	125	93.6	88.0	48.0
St. Johns River Community College	93	88.1	82.7	43.0
Santa Fe Community College	717	90.2	83.1	42.8
University of Florida	5,115	94.0	91.3	59.1
University of North Florida	550	90.3	83.6	44.7
WEST CENTRAL REGION	7,037	90.0	84.3	44.5
Edison Community College	561	87.8	80.0	40.6
Hillsborough Community College	656	88.5	85.0	47.5
Manatee Community College	540	89.6	84.8	46.1
Pasco-Hernando Community College	173	93.0	85.5	44.5
Polk Community College	357	91.3	87.1	43.6
St. Petersburg Jr. College	1,380	91.3	86.0	42.6
South Florida Community College	75	90.6	78.6	32.0
University of South Florida	3,295	89.8	83.8	45.5
STATE TOTALS	34,722	88.3	82.5	43.7
State Universities	17,264	89.7	84.6	48.9
Community Colleges	17,458	87.0	80.5	38.5